

Appln. No. 10/767,562
Amendment
Reply to Office Action dated June 28, 2005

Docket No. 304-820

AMENDMENTS TO THE CLAIMS

This listing will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A circuit arrangement with several inductively operating sensors, said circuit arrangement having:
switching means;[[,]]
control means for said sensors; and
evaluating means for signals generated by said sensors as a response to said control means,

~~wherein and by means of said switching means~~ said control means and said evaluating means are electrically connected by said switching means to in each case one said sensor,

wherein said switching means comprise a single MOSFET with ~~[[a]]~~ one low drain-source ~~resistance~~ resistor per said sensor.

2. (Original) The circuit arrangement according to claim 1, wherein there is provided precisely one switching means per sensor.

3. (Original) The circuit arrangement according to claim 1, wherein said circuit arrangement has resonant circuit capacitors, one said single resonant circuit capacitor being a first resonant circuit capacitor and being connectable by said switching means parallel to in each case all said sensors for producing a measuring frequency.

4. (Original) The circuit arrangement according to claim 3, wherein there is a second resonant circuit capacitor parallel to said first resonant circuit capacitor, and

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switches are provided in order to switch on and off said different resonant circuit capacitors.

5. (Original) The circuit arrangement according to claim 4, wherein switching on and off of said resonant circuit capacitors produces a difference of at least 8% between measuring frequencies.

6. (Original) The circuit arrangement according to claim 1, wherein said sensors are pot or saucepan detection sensors in a cooking zone.

7. (Original) The circuit arrangement according to claim 6, wherein said sensor is a wire loop having a few turns.

8. (Currently amended) A method for operating a circuit arrangement with several inductively operating sensors, having switching means, control means for said sensors and evaluating means for signals, which are generated by said sensors as a response to said control means and ~~by means of said switching means~~ said control means and evaluating means are electrically connected by said switching means to in each case one said sensor, said switching means being a MOSFET with a low drain-source resistance,

wherein the method comprises the steps of:
evaluating the signals generated by said sensors with said evaluating means; and
readjusting a gate control voltage at said MOSFET ~~is readjusted~~ so as to give a frequency which is constant with varying temperature.

9. (Original) The method according to claim 8, wherein operation takes place with two measuring frequencies.

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10. (Original) The method according to claim 9, wherein by averaging over numerous measurements a probability is calculated and by means thereof it is established whether or not a saucepan is present.

11. (Original) The method according to claim 8, wherein two different capacitors are connected in parallel to one said sensor as resonant circuit capacitors and are operated with different measuring frequencies.

12. (New) A circuit arrangement with several inductively operating sensors, said circuit arrangement comprising:
switching means;
control means for said sensors; and
evaluating means for signals generated by said sensors as a response to said control means,

wherein said control means and said evaluating means are electrically connected by said switching means to in each case one said sensor,

wherein said switching means comprise a MOSFET with a low drain-source resistance,

wherein precisely one switching means is provided per sensor, and

wherein two different capacitors are connected in parallel to one said sensor as resonant circuit capacitors and are operable with different measuring frequencies.